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(54) Title: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS FOR PROTON EXCHANGE MEMBRANE

(57) Abstract: Novel multiblock copolymers containing perfluorinated poly(arylene ether) as a hydrophobic segment and disulfonated poly(arylene ether sulfone) as a hydrophilic segment are provided. The multiblock copolymers are used to form proton exchange membranes that are thermally and hydrolytically stable, flexible, and that exhibit low methanol permeability and high proton conductivity. The proton exchange membranes are thus well-suited for use as polymer electrolytes in fuel cells.



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